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HEALTH AS A MEANS TO HAPPINESS, EFFICIENCY AND SERVICE

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Health is the first wealth and all other values rest on this. "How are you," expressed in one form or another, is one of the commonest greetings the world over. Instinctively all of us recognize that life itself is the ultimate value and that our first pursuit must be the increase of its vitality and the enrichment of its meaning. The nation or individual that loses this prime concern for health and normal physical development is doomed inevitably to a state of vital inefficiency, especially in a complex civilization where a highly artificial life conduces to vital impairment. Individual and national health and vigor are not merely natural concomitants of existence but are achievements to be attained by scientific study and strenuous endeavor. The ancient Greeks furnish the best example of a nation which added greatly to the abundance and meaning of life by continuous training in educational hygiene from infancy. The harsh demands of preparedness for possible or actual war have today led many nations to sudden consciousness of health values and of their widespread failure to achieve them.

INDIFFERENCE TO HEALTH PROGRAM

The common indifference to a thoroughgoing program of educational hygiene for children and adults on the part of those, who through fortunate heredity and environment have realized both health and position, is our principal obstacle to progress. Until these fortunate variations of a complex civilization are made to understand general health and development conditions and the means to their amelioration, the democratic socialization of health and "life more abundant" will be ideal dreams. Our leaders argue, "We are healthy. We hardly ever give thought to our health. It comes about naturally. We never have to take a drop of medicine. The way to be healthy is to forget it. All that we need to learn about it will be acquired incidentally." The answer is found in the

undeniable health facts of our nation. Disraeli expressed the proper viewpoint in these words: "Public health is the foundation on which reposes the happiness of the people and the power of a country. The care of public health is the first duty of a statesman." And it may well be added as a corollary that to care for individual and family health is the first and most patriotic duty of a citizen.

In spite of marvellous scientific discoveries and achievements in the realm of health science in recent decades, we fail generally to realize how little health and normal physical development have been socialized and made a part of our common wealth. Measure by any reasonable standard of physical perfection and health at random thousand of the persons who pass on the street any day and what is the result? Learn how many, out of each thousand persons living in the community, remain at home, out of sight and unnoticed, ill and socially ineffective. Note how many of each thousand born reach maturity. Examine the children in the public schools and compute the facts. Study the efficiency of parents in the homes in bringing up healthy vigorous children so trained that they will naturally retain it throughout life. What is our actual health problem?

OUR HEALTH PROBLEM

The normal span of life from birth to death is about seventy years. Heredity is an important influence in determining the length of this span but environmental conditions may either play havoc with heredity or play directly into its hands. One fifth to one eighth of all the babies born in this country each year die before their first birthday. "Oh, these are the children of ignorant immigrant mothers in the slums of our great cities," the reader may exclaim; but the researches of health officers in New York City and Newark demonstrate that infant mortality is far greater in the homes of our *native-born* mothers. These astounding death losses occur all over the country and by effective efforts they may, as has been demonstrated, be reduced far below the general average of the country as a whole in even our most congested cities. What is possible in communities taken for demonstration is possible for whole states and the nation at large. One-fourth to one-sixth of all the children born each year in this country die before reaching the school age of six, and countless thousands who have survived enter our schools

so weakened and maimed by disease and physical defects that they have little chance of profiting by even the most hygienic schooling or of living to the period of productive maturity. Each year approximately a hundred thousand school children, or children of elementary and high school age who should be in school, die in this country. Half of all who are born each year are in their graves before the age of thirty—an age when as we all realize most people are just ready to contribute something to the world. Where is our boasted civilization when we fail so miserably in conserving human life?

Extensive investigation indicates that at any one time three million persons—three out of every hundred of our population—are seriously ill, losing over a billion dollars a year to themselves and to society, not to mention the loss of greater values in the richness, vitality and meaning of life itself. While we have cut down infant mortality considerably in many places, our death rate remains almost stationary because of the great and recent increase of deaths due to degenerative diseases of the heart, kidneys and other organs. Extensive examinations of employes of big business firms by the Life Extension Institute, by Dr. Kristine Mann (department store women),¹ and by others prove that nearly half of the workers of our indoor, city populations are low in vitality, suffer from physical defects, or harbor incipient or well-developed cases of disease. State insurance of workers against illness affords strong confirmatory data. Examinations for entrance into the army and navy add their evidence. The greatest problem faced by England in the war has been to obtain men who after a year's strenuous and scientific educational hygiene could be brought into passable physical condition for filling the trenches. Health is the first wealth; our present losses are over half preventable without great cost; we miserably fail in our first duty as individuals and as communities of citizens. These are grim, undeniable facts which we must resolutely face and vigorously attack with effective weapons.

SCHOOL HEALTH DATA

Medical supervision with its annual examination of millions of school children, from kindergarten to college, is today adding greatly to our knowledge of the extent to which we are providing for our

¹ *Journal of Public Health* for May, 1916.

children reasonable conditions of health and aiding them in the achievement of physical development. My own studies show that in any one year less than a third of our school children are free from serious ailments or remediable physical defects, not counting teeth defects ("the people's disease") which affects approximately another third of the school population. In many schools where no dental crusade has been carried on, about two thirds of the children have teeth defects; one half of these have beside their teeth defects other serious defects or diseases. It would be a conservative judgment to say that on any one day of the school year at least five million of our twenty-two million school children are in serious need of vigorous remedial measures to place them in even fairly normal condition. Dr. Thomas D. Wood of Columbia University places it at twelve to fifteen million. But even five millions of our school children taken with the other millions of the 30 per cent of our entire population (a hundred millions) under the age of twenty give us cause for national concern. Military preparedness, the sinking of the *Lusitania*, the *Titanic*, the *Eastland*, or the *Slocum*, the destruction of thousands in such fires as those of the Iroquois, the Collinwood, or San Francisco, are all serious, attention-seizing concerns; but the important preparedness and the important life and health losses which should command the continuous and searching scrutiny and coöperative effort of our citizens are the losses and drains on national vitality which we have so meagerly sketched above. What are we going to do about it? That is the question.

HEALTH PROGRESS

Well, what have we accomplished? In view of our possibilities, we must admit very little. A hundred years from now our descendants will look back upon our indifference to health conservation as we look back upon the indifference and opposition to public schools of less than a hundred years ago. A curve, or graph, showing the rise of public and private interest in, and efforts for, physical improvement would show a high mode for the ancient Greeks, an almost zero or negative height during the middle ages, a very slight and gradual rise up to a score of years ago, and an abrupt and accelerating rise in these opening years of the twentieth century. Take any manifestation of this increased attention to the first value of life you please and the result will follow closely the

general tendency of the curve. Suppose we take the increase in the number of articles in our magazines, newspapers, and books devoted to health and physical development. Most of my readers can remember when little health matter was published. This was because there were no readers of such matter and because there were practically no writers on the subject. Now all is changed. Books, magazines, newspapers, pamphlets, and like publications containing health contributions are literally crowding our book shelves and our mails. Much of this matter is not widely read and much of it is perhaps scarcely worth reading, but that health science, which has grown so magically in our research laboratories, in our hospitals, and by means of great experiments like the sanitation of Panama or the prophylactic measures of the Japanese army in the Russian war, has advanced some twenty to forty years beyond the masses of our people, no one acquainted with the facts can doubt. We need this adult schooling through all the agencies of publicity and we need a radically improved educational hygiene in connection with our public schools that will result in types of health education which will produce results.

RECENT HEALTH ACHIEVEMENTS

It would be profitable to realize just what advancement in health provisions has been accomplished in the last few years. The playground and recreation movement has swept across this country like fire in prairie grass. Millions are today spent along these lines where nickles were expended in 1900. The movement is already becoming scientific and is being standardized. Scientific health surveys of play and recreation for old and young are becoming every day more common. Likewise, medical inspection, school nursing, school dental-clinics, public and school baths, more sanitary school buildings with gymnasias, sanitary drinking fountains, humidified air, scientific lighting, movable school-desk-chairs, open-air and open-window schools, the feeding of school children, care in schools for mental defectives, cripples, the blind, and other unfortunate deviates, and an enormously improved public health service in most cities and in many states—all bear witness to the rebirth of the physical consciousness of the race of which ages of asceticism, ignorant autocracy, and misdirected individualism almost robbed us. Today we are beginning to realize the prime human values, to

face our national health problems, and to lay secure foundations for personal and national physical efficiency.

HEALTH PROMOTION AND EDUCATION

A great surprise has been the inevitable tendency of all these reform movements to revert to the public schools. Laws may be written but only health-educated legislatures will pass them or make them sound and effective. Only health-educated "constituents," citizens at home who have had some health education and physical training, will support health legislation or live up to it when it is passed. Milk stations and other philanthropies may be provided out of the purse of Mr. and Mrs. Greatwealth but the practical instruction, not the pure milk handed out, saves the babies' lives. The general, the most radical, and most effective method of health promotion is that of education. Knowledge, habits, ideals, and appreciations, must be developed in any population which is to be superiorly fit. To develop these in an adult population is to a slight degree possible. Much is and must be accomplished through adult education. Education along any line must be a life process. But direct instruction and persuasion of adults is in a democracy almost insignificant in effectiveness as compared with the same amount of effort expended upon plastic childhood. The public school is the hope of democracy, for health as well as for citizenship.

Our federal government should require thorough annual or more frequent physical examinations of all persons from birth on, should provide and enforce thoroughgoing physical education of all persons throughout life, should control absolutely the sanitation of all our life environment, should eliminate the hereditary sub-deviates, and provide for eight hours a day of leisure and wholesome recreation as well as skilled medical attention for all persons. If these measures were taken the problems of educational hygiene would not be so great. But we have an individualistic democracy in which the person is monarch of himself and all he possesses as a property right, with few but increasing exceptions. We have not yet the hardihood nor the power of coöperation to provide and maintain vigorous, physical development agencies of a compulsory character. Yet we are going far in this direction. We give our boards of health more power today than we give our police. Public insurance, eradication of infectious diseases and their causes, pub-

lic-school health provisions, a tendency on the part of the government to require only a physically-desirable day of work from its employes and the spread of this movement in many great industries, the tendency to require health examinations before entering upon and while engaged in many kinds of public service, such as teaching, and the life-and-death authority handed over to the government in great disasters such as fires, floods, earthquakes, epidemics, and others—all point to more vigorous and commanding health direction and supervision of a compulsory character on the part of the state in the near future. But still our chief instrument of health promotion for our own good as individuals and as a nation must be the instructed and trained, self-active person.

THE SCHOOL'S OPPORTUNITY AND RESPONSIBILITY

There are many still who conceive of health and physical development as only a very minor care of our schools. Many ignore this aim of schooling entirely. Most schools, public and private, in this country have been erected and equipped with little attention to this aim as a prominent one in education. Our high schools, for example, almost entirely omit hygiene, "how to live," as either an elective or a required subject. Physical education and medical supervision are still in most schools conspicuous by their absence. Only a small proportion of our elementary schools teach hygiene effectively and use the better text-books made available in the last few years. Investigations of normal schools show that student-teachers do not generally get training along this line. Hygiene is absent, even as an elective, from most college curricula, notwithstanding the fact that our people schooled and unschooled continue to fall by tens of thousands before typhoid, tuberculosis, and many other preventable diseases or vitality-robbing defects!

These products of our schooling systems are the ones who are losing their precious children needlessly or are failing to strengthen and equip them for meeting the serious strains of modern complex life. Here is a woman who is the proud possessor of a Phi Beta Kappa key, obtained for superior scholarship from one of our leading universities. Her husband also achieved a similar key. They are husband and wife and they have a baby nearly a year old. That baby is almost dying of rickets. Its growth and development are permanently retarded. The cause is the poor feeding which the

mother gives it. She learned much of the mummies of Egypt, of the wars of the Romans, of the several languages required for college entrance and the bachelor's degree, of the algebra, geometry, etc., likewise required, and many other interesting and possibly attractive "disciplines" and "cultural subjects." But she didn't learn a thing about how to preserve her own or her baby's health; nor did her husband. They didn't study the duties of parenthood here today in America in a city flat; they got "training in reasoning, observation, concentration, and the technique of investigation," but they didn't get ability to observe the condition of their child, to study up on baby feeding, or to investigate, to seek authority, and to follow sound advice when the condition of their child was at last made obvious to them. They had learned many things and had surpassed most of their fellows in the process but they had failed to learn how to live healthily and their ignorance of the hygiene of their child was no more profound than their ignorance regarding their own health. True and typical examples of this kind have probably come to the attention of every reader.

Vital efficiency should stand first among the aims of education. The school as a public, universal agency, dedicated to the amelioration of the condition of all the people, must take the lead; and this it is beginning manfully to do. There is no doubt about the future development along this line! A few progressive systems have experimentally led and the many will follow. What proves successful at Newark, Gary, Boston, Los Angeles, or a single county in a great state, may soon be adopted and required of all. Educational hygiene is an important phase of our great national democratizing process.

EDUCATIONAL HYGIENE

The special phases of the whole school process of educational hygiene are about five in number. They are as follows:

1. Medical supervision—medical inspection, examination, cure and prevention.
2. School sanitation—a wholesome environment for every child.
3. Physical education—play, gymnastics, folk dances, physical work.
4. The teaching of hygiene—health instruction of young and old.

5. The hygiene of methods—wholesome ways of guiding children.

These five divisions in many school systems—city, county and state—are being organized under one head. The term hygiene is as broad as the terms health and physical development, and broader than the term physical education as it has come to be known. The goddess Hygieia of the ancient Greeks was solicitous for the entire physical well-being of man. Some would substitute the term physical education for educational hygiene or school hygiene but they will probably not prevail. Some insist that the field is too vast to be directed by one man and that the amount of medical, gymnastic, recreational, psychological and sanitary knowledge and training such a director would require is too vast to be expected of any one person. But the same may be said of the superintendent of schools or the head of any one of our big business corporations. We have found organization from one center generally profitable and effective. If men with medical degrees and physical education diplomas are not available, or the present course in these various lines not satisfactory for one who is to be director or supervisor of hygiene in a school system, such courses will surely be provided and suitably trained men will inevitably be forthcoming. Others would call the whole department the department of health or of health supervision. But such a designation would frequently lead to confusion both as to the scope of the department and as to whether the general city health department or the school health department were meant. The “department of hygiene” and the “supervisor of hygiene” are perhaps the most desirable designations for the schools. We need not use the term *school* hygiene any more than we would use the term school drawing or school penmanship. These departments and these supervisors in public school systems have no need for such redundancy.

We emphasize these distinctions in administration because they outline the scope, help to get the right start, and encourage sound development of this whole school movement for national health and vitality. The field is enticing and expanding. Recent discoveries in ventilation, for example, which destroy the old lack-of-oxygen and surplus-of-carbon-dioxide theory of bad ventilation on which our school houses and ventilating plants are constructed will greatly

modify this phase of school architecture and sanitation in the direction of providing perceptible movement of the air, proper humidity, and proper temperature. But our space limits keep us from expanding the five phases of the work. A six-hundred-fifty page volume recently published little more than roughly sketches the outlines of the several fields.²

²*Educational Hygiene*, Edited by L. W. Rapeer, Scribner's Sons, New York.